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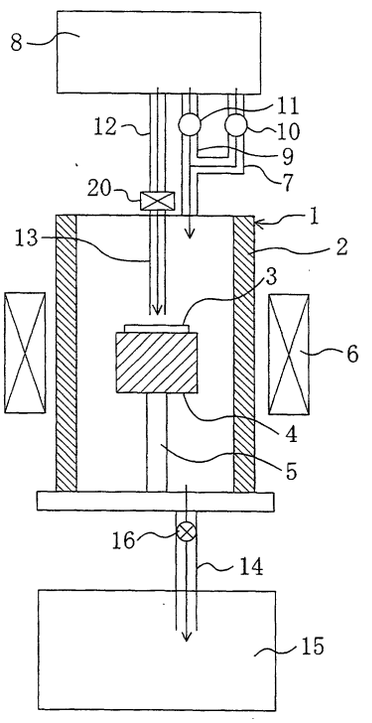
(54) Method for growing semiconductor film by pulsed chemical vapour deposition

(57) In a chamber, a substrate is mounted on a susceptor and then heated to an elevated temperature. Source and diluting gases are supplied into the chamber through source and diluting gas supply pipes provided with respective flow meters. In addition, a doping gas is also supplied through an additive gas supply pipe, which is provided with a pulse valve, and a gas inlet pipe into the chamber by repeatedly opening and closing the pulse valve. In this manner, a doped layer is grown epitaxially on the substrate. In this case, a pulsed flow of the doping gas is directly supplied through the pulse valve onto the substrate from the outlet port of a pressure reducer for a doping gas cylinder. As a result, a steeply rising dopant concentration profile appears in a transition region between the substrate and the doped layer, and the surface of the doped layer is planarized.

Fig. 1



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EUROPEAN SEARCH REPORT

Application Number
EP 00 10 5710

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TECHNICAL FIELDS SEARCHED (Int.Cl.7)

H01L
C30B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
MUNICH	11 September 2003	Kiliaan, S

CATEGORY OF CITED DOCUMENTS

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